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CLAIMS

1. A porous body which is soluble or dispersible in
5 aqueous media comprising a three dimensional open-cell
lattice containing:
- (a) 10 to 95% by weight of a polymeric material which
is soluble in water, and,
- 10 (b) less than 5% by weight of a surfactant, said
porous bodies having an intrusion volume as
measured by mercury porosimetry (as hereinafter
described) of at least about 3 ml/g, and, with the
15 proviso that said porous bodies are not spherical
beads having an average bead diameter of 0.2 to
5mm.
2. Porous bodies as claimed in claim 1 wherein the bodies
20 are in the form of powders, beads or moulded bodies.
3. Porous bodies as claimed in claim 1 or claim 2 wherein
the polymeric material is a homopolymer or copolymer
made from one or more of the following (co)monomers:-
25 alkenes; dienes; urethanes; vinyl esters; styrenics;
alkyl (meth)acrylates; alkyl (meth)acrylamides;
(meth)acrylo-nitrile; vinyl ethers; imides; amides;
anhydrides, esters; ethers, carbonates;
isothiocyanates; silanes; siloxanes; sulphones;
30 aliphatic and aromatic alcohols; aromatic and aliphatic
acids; aromatic and aliphatic amines

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4. Porous bodies as claimed in claim 3 wherein the polymeric material is polyvinyl alcohol.

5 5. Porous bodies as claimed in any preceding claim wherein the porous polymeric bodies have water soluble and/or water insoluble materials incorporated into the polymeric lattice

10 6. Water soluble porous polymeric bodies as claimed in claim 5 wherein the water soluble material is selected from water soluble vitamins; water soluble fluorescers; activated aluminium chlorohydrate; transition metal complexes used as bleaching catalysts; water soluble
15 polymers; diethylenetriaminepentaacetic acid (DTPA); primary and secondary alcohol sulphates containing greater than C8 chain length or mixtures thereof.

20 7. Water soluble porous polymeric bodies as claimed in claim 5 wherein the water insoluble material is selected from antimicrobial agents; antidandruff agent; skin lightening agents; fluorescing agents; antifoams; hair conditioning agents; fabric conditioning agents; skin conditioning agents; dyes; UV protecting agents;
25 bleach or bleach precursors; antioxidants; insecticides; pesticides; herbicides; perfumes or precursors thereto; flavourings or precursors thereto; pharmaceutically active materials; hydrophobic polymeric materials and mixtures thereof.

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8. A method for preparing water dispersible or water soluble porous bodies which are soluble or dispersible in non-aqueous media comprising a three dimensional open-cell lattice containing 10 to 95% by weight of a polymeric material which is soluble in water, and, less than 5% by weight of a surfactant, said porous bodies having an intrusion volume as measured by mercury porosimetry (as hereinafter described) of at least about 3 ml/g, and, with the proviso that said porous bodies are not spherical beads having an average bead diameter of 0.2 to 5mm: said method comprising the steps of:

a) providing an intimate mixture of the polymeric material and any surfactant in a liquid medium

b) providing a fluid freezing medium at a temperature effective for rapidly freezing the liquid medium;

c) cooling the liquid medium with the fluid freezing medium at a temperature below the freezing point of the liquid medium for a period effective to rapidly freeze the liquid medium; and

d) freeze-drying the frozen liquid medium to form the porous bodies by removal of the liquid medium by sublimation.

9. A method as claimed in claim 8 wherein the cooling of the liquid medium is accomplished by spraying an atomised water-in-oil emulsion into the fluid freezing

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medium; by dropping drops of a water-in-oil emulsion into the fluid freezing medium or by pouring a water-in-oil emulsion into a mould and cooling the emulsion in the mould.

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10. A method as claimed in claim 8 or 9 wherein the polymeric material is a homopolymer or copolymer made from one or more of the following (co)monomers:-
Alkenes; dienes; urethanes; vinyl esters; styrenics;
10 alkyl (meth)acrylates; alkyl (meth)acrylamides;
(meth)acrylonitrile; vinyl ethers; imides; amides;
anhydrides, esters; ethers, carbonates;
isothiocyanates; silanes; siloxanes; sulphones;
aliphatic and aromatic alcohols; aromatic and aliphatic
15 acids; aromatic and aliphatic amines

11. A method as claimed in claim 10 wherein the polymeric material is polyvinyl alcohol

- 20 12. A method as claimed in claim 8 wherein the intimate mixture is a water-in-oil emulsion.

13. A method as claimed in claim 12 wherein the discontinuous phase of the emulsion comprises 10 to 95%
25 by volume of the emulsion.

14. A method as claimed in claim 13 wherein the discontinuous phase of the emulsion comprises 20 to 60% by volume of the emulsion

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15. A method as claimed in claim 12 wherein the
discontinuous phase of the emulsion is selected from
alkanes; cyclic hydrocarbons; halogenated alkanes;
esters; ketones; ethers; volatile cyclic silicones and
5 mixtures thereof.

16. Solutions or dispersions comprising a polymeric
material obtainable by exposing the porous bodies of
any one of claims 1 to 7 to a aqueous medium.

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17. Solutions or dispersions comprising a polymeric
material, surfactant and a hydrophilic material
obtainable by exposing the porous bodies of claim 5
water having insoluble materials incorporated into the
polymeric lattice to an aqueous medium.

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